

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks. Claims 1-29 are pending in the present application, of which, Claims 1, 13, 23, 26, and 29 are independent claims. By virtue of the amendments above, Claims 1, 13, 23, 26, and 29 have been amended.

No new matter has been introduced by way of the amendments above and entry thereof is respectfully requested.

Improper Final Rejection

It is respectfully submitted that the current Official Action has improperly been made final. The First Official Action dated August 5, 2003 merely stated that Claims 1-6, 10-18, and 22-29 were rejected based especially upon the disclosure contained in columns 11-14 and Figures 4, 15, and 17 of U.S. Patent No. 6,201,176 to Yourlo. That Official Action, however, did not recite any of the interpretations made by the Examiner in rejecting the claims of the present invention. Therefore, although Applicants attempted to provide arguments against that rejection based upon a reasonable interpretation of the Yourlo document, Applicants in no way could have meaningfully understood how the Examiner interpreted the elements recited in Claims 1-6, 10-18, and 22-29 of the present invention.

The Examiner has, however, in the Final Official Action, described how he interprets some of the elements set forth in Claims 1-6, 10-18, and 22-29. More particularly, the Official Action now states that the Examiner interprets the "sample time signal" as "tempo data". Since a response to the Final Office Action is the first time during prosecution of the present application in which this rejection has been, this also marks the first time that

Applicants have been provided with an opportunity to respond to the rejection based upon the Examiner's interpretation of the claimed elements.

In view of the above, Applicants respectfully assert that Applicants are reasonably entitled to a complete prosecution of the present application. Accordingly, Applicants respectfully request withdrawal of the final status of the Office Action and entry of the present Request for Reconsideration.

Allowable Subject Matter

The indication that Claims 7-9, and 19-21 are objected to as being dependent upon a rejected base claim, but are otherwise allowable, is noted with appreciation. However, Applicants believe that the claims upon which these claims depend are also allowable. Therefore, Applicants have elected to await the Examiner's review of the following remarks prior to any decision to convert any of Claims 7-9 and 19-21 into independent form.

Claim Rejection Under 35 U.S.C. §102

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. § 102, is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents thereof functioning in substantially the same way to produce substantially the same results. As noted by the Court of Appeals for the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. § 102, the Court stated:

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.

Therefore, if the cited reference does not disclose each and every element of the claimed invention, then the cited reference fails to anticipate the claimed invention and, thus, the claimed invention is distinguishable over the cited reference.

Claims 1-6, 10-18, and 22-29 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by the disclosure contained in U.S. Patent No. 6,201,176 to Yourlo. This rejection is respectfully traversed because the claimed invention as set forth in Claims 1, 13, 23, 26, and 29 and the claims that depend therefrom are patentably distinguishable over the disclosure contained in the Yourlo document.

A description of the features contained in Claim 1 is discussed hereinbelow to provide a better understanding as to how this claim differs from the disclosure contained in Yourlo. In Claim 1, there is claimed a method for identifying music. As discussed throughout the present application, a user, for instance, possesses a sample of the music to be identified in the form of audio data. By way of example, the user has a sample of music and wishes to determine some information about that music sample, for instance, the song title, artist, pricing information, etc. That sample of audio data is recorded and a sample time signal is derived from that sample of audio data with an A/D converter. A plurality of songs is sorted, in which each song is represented by a time signal. The sample time signal is matched with the time signal of a song in the plurality of songs to identify, for instance, the song corresponding to the sample of music.

The “time signal” and the “sample time signal” are described on page 3, lines 10 and 11 of the present Specification as comprising processed audio signals. More particularly, the

“time signal” and the “sample time signal” are processed data converted from audio signals by an A/D converter 115. Thus, the A/D converter 115 converts the analog signals obtained from the audio signals into digital form. The “time signal” represents processed data of audio signals from a plurality of songs which may be stored in a database server 125. The “sample time signal” represents processed data of audio signals of music to be identified.

In contrast, Yourlo pertains to a system and method for querying a music database in response to receipt of a music query or request 104, which is already known to the user. More particularly, Yourlo describes a system in which a user may retrieve songs that are similar or dissimilar to known songs or songs that meet certain user specified criteria, for instance, tempo or loudness. Yourlo, therefore, discloses that the music query or request 104 from the user may include “(1) a set of names of known pieces of music and the degree of similarity/dissimilarity specified by a conditional expression...; and (2) a set of user specified features and a similarity/dissimilarity specification in the form of a conditional expression (e.g. something that has a tempo of around 120 beats per minute, and is mostly loud).” (Column 10 lines 47-57). In this regard, Yourlo discloses a method in which user specified features are implemented to output music identifiers 108 associated with the desired piece of music 106. In other words, the method disclosed in Yourlo matches user identified features, e.g., the name of the piece of music, along with conditional expressions, with songs that are similar or dissimilar to those identified features. (See column 4, lines 26-29).

Yourlo, therefore, does not disclose a “time signal” or a “sample time signal” which are used in matching unknown pieces of music to known pieces of music as set forth in Claim 1 of the present invention. In fact, the Official Action seems to acknowledge this distinction but allegedly argues that the “time signal” and the “sample time signal” are somehow

equivalent to the “tempo data 404” disclosed in Yourlo. It is respectfully submitted that the alleged equivalence is improper and that Yourlo fails to disclose all of the elements of Claim 1 for at least the following reasons.

“Tempo” is defined as “the speed at which music is or ought to be played...a characteristic rate or rhythm of activity, a pace”. (American Heritage Dictionary of the English Language, Fourth Edition. 2000). With respect to Yourlo, therefore, the “tempo data” pertains to information regarding the characteristic rate or rhythm of a piece of music 100. In addition, Yourlo discloses that the tempo data is extracted for the entire duration 602 of the piece of music 100. (Column 5, lines 44-46). The extracted tempo data is relied upon by Yourlo to retrieve songs based upon a minimum feature distance.

Moreover, Yourlo fails to disclose that the “tempo data 404” comprises processed data converted from audio signals by an A/D converter. Instead, Yourlo discloses that the temp data 404 is derived from a tempo feature extraction process 402. More particularly, Yourlo discloses in column 5, lines 39-45:

Tempo extraction firstly involves determination of the signal 620 (see FIG. 6) from the piece of music 100, and then involves filtering this output signal through a bank of comb filters. Finally the energy in the comb filters, accumulated over substantially the entire duration 602 of the piece of music, 100 provides the raw tempo data 404 (see FIG. 4) indicative of the tempo or tempi (various tempos) present in the piece of music 100 substantially over its duration 602.

The use of comb filters is not equivalent to the use of A/D converters for processing audio signals. In fact, Yourlo does not disclose that audio signals undergo any type of conversion from analog to digital signals. Therefore, Yourlo does not disclose that the “tempo data 404” is equivalent to “time signals” or “sample time signals”.

Accordingly, Yourlo clearly fails to disclose the steps of recording a sample of audio data of music to be identified, deriving a sample time signal from the audio data with an A/D

converter, sorting a plurality of songs, wherein each song is represented by a time signal, and matching the sample time signal with the time signal of the song in the plurality of songs as set forth in Claim 1 of the present invention.

Yourlo fails to disclose the elements of Claims 13 and 26 for reasons similar to those set forth hereinabove with respect to Claim 1. For instance, Yourlo fails to disclose a means for recording a sample of audio data of music to be identified. Instead, as stated hereinabove, in Yourlo, the user does not record a sample of audio data of music to be identified but inputs information to obtain songs that meet certain predefined criteria. In addition, Yourlo fails to disclose means for deriving a sample time signal from the audio data with an A/D converter. Yourlo further fails to disclose a means for sorting a plurality of songs, wherein each song is represented by a time signal, and a means for matching the sample time signal with the time signal of a song in the plurality of songs.

With respect to Claims 23 and 29, Yourlo fails to disclose the elements contained therein for reasons similar to those set forth hereinabove with respect to Claim 1.

As Yourlo fails to disclose each and every element contained in Claims 1, 13, 23, 26, and 29, Yourlo cannot anticipate these claims. Accordingly, the Examiner is respectfully requested to withdraw the rejection of Claims 1, 13, 23, 26, and 29 as being anticipated by the disclosure contained in Yourlo. At least by virtue of their dependencies to respective allowable Claims 1, 13, 23, and 26, Claims 2-12, 14-22, 24, 25, 27, and 28 are also allowable over the disclosure contained in Yourlo.

PATENT

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Conclusion

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

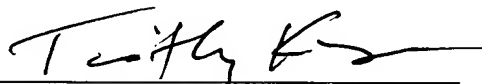
Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Ramin Samadani et al.

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By



Timothy B. Kang
Registration No.: 46,423

MANNAVA & KANG, P.C.
2930 Langdon Gate Drive
Fairfax, VA 22031
(703) 560-8503
(703) 991-1162 (facsimile)